

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows. This listing of claims will replace all prior listings.

1. (CURRENTLY AMENDED) An air spring assembly comprising:
a piston;
a piston airbag formed of a flexible material and mounted to said piston to define a first variable volume chamber; and
a primary airbag formed of a flexible material to define a second variable volume chamber, said first variable volume chamber being pneumatically isolated from said second variable volume chamber, mounted adjacent said piston air bag such that and wherein at least a portion of said primary airbag contacts is mounted in contact with an outer surface of said piston airbag such that a change in volume of said first variable volume chamber operates to change a spring rate of said primary airbag in response thereto; and
an air supply to direct air independently into said first variable volume chamber and said second variable volume chamber.
2. (CANCELED)
3. (CURRENTLY AMENDED) The air spring assembly as recited in claim 2 1, wherein a an increased volume of air is directed into said piston airbag to change in a diameter of said piston airbag changes and change a spring rate of said primary airbag.
4. (CURRENTLY AMENDED) The air spring assembly as recited in claim 2 1, wherein an increase in pressure within said first variable volume chamber increases a spring rate of said primary airbag.

5. (CURRENTLY AMENDED) The air spring assembly as recited in claim 2 1, wherein a decrease in pressure within said first variable volume chamber decreases a spring rate of said primary airbag.

6. (CURRENTLY AMENDED) The air spring assembly as recited in claim 1, further comprising a first band and a second band ~~which retains that retain~~ said piston airbag to said piston.

7. (ORIGINAL) The air spring assembly as recited in claim 6, further comprising a third band which retains said primary airbag to said piston airbag.

8. (ORIGINAL) The air spring assembly as recited in claim 7, wherein said third band retains said primary airbag to said second band.

9. (ORIGINAL) The air spring assembly as recited in claim 1, wherein said piston comprises a mount and an outer piston, said piston airbag mounted to said outer piston.

10. (CURRENTLY AMENDED) An air suspension system for a vehicle having a frame member, the air suspension system comprising:

a longitudinal member extending generally ~~lengthways~~ along a length of the ~~vehicle~~ frame member and mountable to the vehicle for pivotal movement about an axis generally transverse of to the vehicle frame member;

a primary airbag formed of a flexible material disposed between said longitudinal member and said vehicle the frame member to define a variable volume chamber; and

a piston airbag formed of a flexible material to define a variable volume chamber isolated from said first variable volume chamber, and wherein said piston airbag is mounted at least partially within said primary airbag such that a portion of said primary airbag contacts an outer surface of said piston airbag[[,]] such that a

change in pressure within volume of said piston airbag operates to change a spring rate defined by of said primary airbag in response thereto.

11. (CURRENTLY AMENDED) The suspension system as recited in claim 10, further comprising an air supply which independently communicates air to said primary airbag and said piston airbag respectively through a respective port first and second ports, said first port being in an upper mount which mounts said primary airbag and said second a port being in a lower mount, said lower mount that is mounted to a piston support which supports said piston airbag.

12. (CURRENTLY AMENDED) A method of changing a spring rate of an air spring assembly comprising the steps of:

(1) mounting a primary airbag adjacent to and pneumatically isolated from a piston airbag such that the piston airbag is located as a rolling surface for the primary airbag, the piston airbag defines defining a selectively changeable first volume and the primary airbag defines defining a selectively changeable second volume; and

(2) independently changing a pressure within the selectively changeable first volume independent of a pressure within the selectively changeable second volume such that a spring rate of the primary airbag changes.

13. (CANCELED)

14. (CURRENTLY AMENDED) A The method as recited in claim 12, further comprising the step of:

independently changing a volume of the selectively changeable second volume defined within the primary airbag changes the spring rate of the primary airbag.

15. (CURRENTLY AMENDED) An air spring assembly comprising:
a piston;
a piston airbag mounted to said piston;

a primary airbag mounted adjacent said piston air bag such that at least a portion of said primary airbag contacts said piston airbag;

a first band and a second band which ~~retains~~ retain two spaced ends of said piston airbag to an outer surface of said piston and to define a sealed chamber therebetween; and

~~a third band which retains said primary airbag to said piston airbag, said third band retains said primary airbag to said second band.~~

16. (CURRENTLY AMENDED) An air suspension system for a vehicle having a frame member, the air suspension system comprising:

a longitudinal member extending generally ~~lengthways~~ along a length of the ~~vehicle~~ frame member and mountable to the vehicle for pivotal movement about an axis generally transverse ~~of~~ to the ~~vehicle~~ frame member;

a primary airbag disposed between said longitudinal member and said the vehicle frame member;

a piston airbag mounted at least partially within said primary airbag such that a change in pressure within said piston airbag operates to change a spring rate defined by said primary airbag; and

an air supply which independently communicates air to said primary airbag and said piston airbag.

17. (PREVIOUSLY PRESENTED) The air spring assembly as recited in claim 1, wherein said primary airbag is located to roll along said outer surface of said piston airbag.

18. (CANCELED)

19. (PREVIOUSLY PRESENTED) The suspension system as recited in claim 10, wherein said primary airbag is located to roll along said outer surface of said piston airbag.

20. (CANCELED)

21. (CURRENTLY AMENDED) The air spring assembly as recited in claim 1, further comprising a piston support, said piston airbag mounted to said piston support, said piston support having ~~ports~~ at least one port located through a radial surface defined about a longitudinal axis of said piston support to communicate an airflow into said piston airbag to change a pressure within said piston airbag.

22. (CURRENTLY AMENDED) The air spring assembly as recited in claim 21, ~~further comprising an air supply which independently communicates air to said primary airbag and said piston airbag through a respective~~ wherein said at least one port comprises at least a first port in an upper mount which that mounts said primary airbag and a second port in a lower mount, said lower mount mounted to a said piston support which that supports said piston airbag.

23. (CURRENTLY AMENDED) The suspension system as recited in claim 10, further comprising a piston support, said piston airbag mounted to said piston support, said piston support having ~~ports~~ at least one port located through a radial surface defined about a longitudinal axis of said piston support to communicate an airflow into said piston airbag to change a pressure within said piston airbag.

24. (PREVIOUSLY PRESENTED) The suspension system as recited in claim 23, further comprising a lower mount attached to said piston support, said lower mount attached to said longitudinal member.

25. (NEW) The air spring assembly as recited in claim 1, wherein the air supply communicates air independently into said primary airbag and said piston airbag through a respective first supply conduit and second supply conduit.

26. (NEW) The suspension system as recited in claim 10, further comprising an air supply which communicates air independently into said primary airbag and said piston airbag through a respective first supply conduit and second supply conduit.

27. (NEW) The method as recited in claim 12, wherein said step (2) further comprises the step of:

(a) communicating air independently into the selectively changeable first volume and the selectively changeable second volume to independently change the pressures therein.

28. (NEW) The method as recited in claim 12, wherein said step (2) further comprises the step of:

(a) independently changing a pressure within the piston airbag to change an equilibrium diameter such that the primary airbag spring rate is changed.

29. (NEW) The method as recited in claim 28, wherein said step (2) further comprises the step of:

(b) increasing the pressure within the piston airbag to increase the diameter of the piston airbag to increase a diameter of the primary airbag and provide a greater spring rate and ride height.

30. (NEW) The method as recited in claim 28, wherein said step (2) further comprises the step of:

(b) decreasing the pressure within the piston airbag to decrease the diameter of the piston airbag to decrease a diameter of the primary airbag and provide a decreased spring rate and ride height.

31. (NEW) The suspension system of claim 15, wherein said third band retains said primary airbag to said piston airbag.